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EXAMINER

DANIEL JR, WILLIE J

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/992,804

Applicant(s)

JANA ET AL.

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to applicant's amendment filed on 26 November 2004. **Claims 1-39** are now pending in the present application.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**Claim 39** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding **Claim 39**, applicant claims "...tracking movement of a plurality of **mobile devices operating mobile communication devices**, across a wireless network...".

Regarding **Claim 39**, the claim includes a limitation that is not supported by the specification as originally filed. The applicant is advised to review the cited subject matter of the specification (see pg. 9, lines 2-6), which states "...a portable device (i.e., mobile device) operated by a user". The Examiner respectfully requests the applicant to provide page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s) to help clarify and resolve this issue(s).

3. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review the all claim(s) that have similar limitations and/or issues as the claim(s) cited above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Crane et al.** (hereinafter Crane) (US 6,381,533 B1) in view of **Myr** (US 6,480,783 B1).

Regarding **Claim 1**, Crane discloses a method of deriving information based on activities of a plurality of cellular phones (106) which reads on the claimed "mobile devices" (see col. 2, line 66 - col. 3, line 7; col. 3, lines 16-56; Figs. 1, 6), the method comprising:

tracking movement of a plurality of mobile devices (106) across a wireless network (see col. 3, lines 1-7; col. 5, lines 5-35; Figs. 1, 6), where the cellular phones location is monitored by the cellular system in which the wireless network would be inherent;

identifying a group of mobile devices (106) utilized in a common location-based activity from the plurality of mobile devices (106) based on the tracked movement (see col. 5, lines 5-35,45-47; col. 5, lines 55 - col. 6, line 2; Figs. 1, 6), where the location-based activity is the cellular phones traveling in a cluster of a geographic area;

determining a group property associated with the group of mobile devices (106) (see col. 5, line 55 - col. 6, line 2), where the travel speed of the cellular phones is averaged. Crane fails to disclose having the feature providing a customized service derived from said tracked movement to at least one mobile device of the group. However, the examiner maintains that the feature providing a customized service derived from said tracked movement to at least one mobile device of the group was well known in the art, as taught by Myr.

In the same field of endeavor, Myr discloses the feature providing a customized service derived from said tracked movement to at least one vehicle unit (SMU, CMU) which reads on the claimed "mobile device" of the group (see col. 4, lines 49-57, 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature providing a customized service derived from said tracked movement to at least one mobile device of the group, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 2**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 1), in addition Crane further discloses the method according to claim 1, wherein the location-based activity is selected from a group comprising of traveling in a geographic region, traveling to a geographic region, traveling from a geographic region, and being in a geographic region but not traveling (see col. 5, lines 5-35, 45-47; col. 5, line 55 - col. 6, line 2; Fig. 7).

Regarding **Claim 3**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 1), in addition Crane further discloses the method according to claim 1, further comprising deriving a group condition based on the determined group property (see col. 5, line 55 - col. 6, line 2; col. 6, line 9-20; Figs. 6-7).

Regarding **Claim 4**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 3), in addition Crane further discloses the method according to claim 3, wherein the derived group condition comprises a traffic condition in a geographic region (see col. 5, line 55 - col. 6, line 2; col. 6, line 9-20; Figs. 6-7).

Regarding **Claim 5**, Crane fails to disclose having the feature wherein said providing step is based on the derived traffic condition. However, the examiner maintains that the feature wherein said providing step is based on the derived traffic condition was well known in the art, as taught by Myr.

Myr further discloses the feature wherein said providing step is based on the derived traffic condition (see col. 4, lines 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information according to traffic situations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein said providing step is based on the derived traffic condition, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 6**, Crane fails to disclose having the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion. However, the examiner maintains that the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion was well known in the art, as taught by Myr.

Myr further discloses the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic jam which reads on claimed "traffic congestion" (see col. 4, line 51-54; col. 7, lines 3-23; col. 8, line 66 - col. 9, line 9; col. 9, line 30-42; Figs. 1, 9, 12, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 7**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 3), in addition Crane further discloses the method according to claim 3, further comprising providing information corresponding to the derived group condition to an interested party (see col. 6, lines 1-4), where the information is provided to traffic monitoring organizations or users of the cellular phone location determining system (104) (see Figs. 1, 6-8).

Regarding **Claim 8**, Crane fails to disclose having the feature further comprising: identifying a second group of mobile devices having a potential interest in obtaining the

derived group condition; and providing the derived group condition to the one or more mobile devices of the second group. However, the examiner maintains that the feature further comprising: identifying a second group of mobile devices having a potential interest in obtaining the derived group condition; and providing the derived group condition to the one or more mobile devices of the second group was well known in the art, as taught by Myr.

Myr further discloses the feature further comprising:

identifying a second group of mobile devices having a potential interest in obtaining the derived group condition (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the vehicle is informed of the condition of a zone that the vehicle is traveling towards; and

providing the derived group condition to the one or more mobile devices of the second group (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the zone condition information is provided to the vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature further comprising: identifying a second group of mobile users having a potential interest in obtaining the derived group condition; and providing the derived group condition to the one or more mobile users of the second group, in order traffic information provided to the vehicle, as taught by Myr.

Regarding **Claim 9**, Crane fails to disclose having the feature further comprising: identifying a second group of mobile users having a potential interest in obtaining the determined group property; and providing the determined group property to the one or more



mobile devices of the second group. However, the examiner maintains that the feature further comprising: identifying a second group of mobile users having a potential interest in obtaining the determined group property; and providing the determined group property to the one or more mobile devices of the second group was well known in the art, as taught by Myr.

Myr further discloses the feature further comprising: identifying a second group of mobile users having a potential interest in obtaining the determined group property (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the vehicle is informed of the condition of a zone that the vehicle is traveling towards; and

providing the determined group property to the one or more mobile devices of the second group (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the zone condition information is provided to the vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature further comprising: identifying a second group of mobile users having a potential interest in obtaining the determined group property; and providing the determined group property to the one or more mobile devices of the second group, in order to provide traffic information to the vehicle, as taught by Myr.

Regarding **Claim 10**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 1), in addition Crane further discloses the method according to claim 1, further comprising dynamically updating group information corresponding to the mobile devices (106) of the group (see col. 3, lines 49-67; col. 6, lines

21-37,46-52; Fig. 8), where the information or data collected for the data collection system (200) is updated as the cellular phones move between clusters of a geographic area.

Regarding **Claim 11**, Crane fails to disclose the feature wherein the updating includes modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile user from the group. However, the examiner maintains that the feature wherein the updating includes modifying the group information to reflect one of an addition of a new mobile user to the group and a deletion of a mobile device from the group was well known in the art, as taught by Myr.

Myr further discloses the feature wherein the updating includes modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile device from the group (see col. 12, lines 11-38; col. 13, lines 2-15; Figs. 13, 18), where the system collects data related to the zones as vehicles enter and exit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein the updating includes modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile device from the group, in order to provide traffic information to the vehicle, as taught by Myr.

Regarding **Claim 12**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 10), in addition Crane further discloses the method according to claim 10, wherein the updating includes modifying the group information to reflect new activity information of mobile devices of the group (see col. 5, line 55 - col. 6,

line 1; col. 5, lines 41-48), where data is collected to reflect the current conditions for traffic monitoring and reporting in which the new activity information would be inherent

Regarding **Claim 13**, Crane discloses the feature wherein said providing step is based on the one or more determined group properties. However, the examiner maintains that the feature wherein said providing step is based on the one or more determined group properties was well known in the art, as taught by Myr.

Myr further discloses the feature wherein said providing step is based on the one or more determined group properties (see col. 4, lines 62-65; col. 7, line 3-23, col. 8, lines 30-36; col. 8, line 66 - col. 9, line 9; col. 9, line 48-63; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein said providing step is based on the one or more determined group properties, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 14**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 1), in addition Crane further discloses the method according to claim 1, further comprising maintaining a database of information including at least one of group information corresponding to the mobile devices (106) of the group, group conditions and group properties (see col. 3, lines 49-55; col. 5, lines 41-48; col. 5, line 55 - col. 6, line 19; Figs. 4, 6-7), where the location determining system (104) and data collection system (200) collects data of the cellular phones in which the database would be inherent.

Regarding **Claim 15**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 14), in addition Crane further discloses the method according to claim 14, further comprising dynamically updating the database of information based on the activities of the plurality of mobile devices (106) (see col. 3, lines 49-67; col. 6, lines 21-37, 46-52; Fig. 8), where the information or data collected for the data collection system (200) is updated as the cellular phones move between clusters of a geographic area.

Regarding **Claim 16**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 15), in addition Crane further discloses the method according to claim 15, wherein the plurality of mobile devices (106) are tracked based on the database of information (see col. 3, lines 49-67; col. 5, lines 6-32; col. 5, line 55 - col. 6, line 2; Figs. 6-7).

Regarding **Claim 17**, Crane discloses a method of providing services to a plurality of mobile devices (106) (see col. 5, line 55 - col. 6, line 5; Figs. 6-7), the method comprising:

tracking the mobile devices (106) across a wireless network (see col. 3, lines 1-7; col. 5, lines 5-35; Figs. 1, 6), where the cellular phones location is monitored by the cellular system in which the wireless network would be obvious;

identifying a group of mobile devices (106) sharing one or more common traits from the mobile devices (106) (see col. 5, lines 5-35, 45-47; col. 5, lines 55 - col. 6, line 2; Figs. 1, 6), where the cellular phones are operating in the same cluster of a geographic area. Crane fails to disclose the feature providing customized service to at least one mobile device of the group of mobile devices derived from the one or more common traits. However, the examiner maintains that the feature providing customized service to at least one mobile

device of the group of mobile devices derived from the one or more common traits was well known in the art, as taught by Myr.

Myr further discloses the feature providing customized service to at least one mobile device (SMU, CMU) of the group of mobile devices (SMU, CMU) derived from the one or more common traits (see col. 4, lines 62-65; col. 7, line 3-23, col. 8, lines 30-36; col. 8, line 66 - col. 9, line 9; col. 9, line 48-63; Figs. 1, 9, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature providing customized service to at least one mobile device of the group of mobile devices derived from the one or more common traits, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 18**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 17), in addition Crane further discloses wherein tracking the mobile devices (106) comprises tracking movement of the mobile devices (106) and identifying a group of mobile devices (106) comprises identifying a group of mobile devices (106) utilized in one or more common location-based activities (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7), where the cellular phones are traveling with in the same geographic area.

Regarding **Claim 19**, Crane discloses a method of deriving information based on activities of mobile devices (106), the method comprising:

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tracking the mobile devices (106) across one or more wireless networks (see col. 3, lines 1-7; col. 5, lines 5-35; Figs. 1, 6), where the cellular phones location is monitored by the cellular system in which the wireless network would be inherent;

identifying a group of mobile devices (106) sharing one or more common traits from the mobile devices (106) (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7); and

determining one of a group condition and a group property of the identified group of mobile devices (106) (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7).

Crane fails to disclose having the feature providing a customized service derived from one or more common traits to at least one mobile device of the identified group. However, the examiner maintains that the feature providing a customized service derived from one or more common traits to at least one mobile device of the identified group was well known in the art, as taught by Myr.

Myr further discloses the feature providing a customized service derived from one or more common traits to at least one vehicle unit (SMU, CMU) which reads on the claimed "mobile device" of the identified group (see col. 4, lines 49-57, 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information according to the traffic situation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature providing a customized service derived from one or more common traits to at least one

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mobile device of the identified group, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 20**, Crane discloses a system for deriving information based on the activity of mobile devices (106) (see col. 5, lines 6-32; Fig. 6), the system comprising:

memory medium for maintaining information corresponding to a movement of mobile devices (106) in order to track the movement of mobile devices (106) (see col. 5, lines 41-48; col. 5, line 55 - col. 6, line 19; col. 3, lines 49-63; Figs. 1, 6-8), where the data collection system (200) collects data of the cellular phones in a geographic area in which the memory medium would inherent; and

at least one data collection system (200) which reads on the claimed “processor” for identifying a group of mobile devices (106) utilized in one or more common location-based activities from the mobile devices (106) based on the tracked movement and for determining a group property associated with the group of mobile devices (106) (see col. 5, lines 41-48; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-8). Crane fails to disclose having the feature providing a customized service derived from said tracked movement to at least one mobile device of the group. However, the examiner maintains that the feature providing a customized service derived from said tracked movement to at least one mobile device of the group was well known in the art, as taught by Myr.

Myr further discloses the feature providing a customized service derived from said tracked movement to at least one vehicle unit (SMU, CMU) which reads on the claimed “mobile device” of the group (see col. 4, lines 49-57, 62-65; col. 7, line 3-23; col. 15, lines

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45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature providing a customized service derived from said tracked movement to at least one mobile device of the group, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 21**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 20), in addition Crane further discloses the system according to claim 20, wherein the location-based activity is selected from a group comprising of traveling in a geographic region, traveling to a geographic region, traveling from a geographic region, and being in a geographic region but not traveling (see col. 5, lines 5-35, 45-47; col. 5, line 55 - col. 6, line 2; Figs. 1, 6-8).

Regarding **Claim 22**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 20), in addition Crane further discloses the system according to claim 20, wherein the processor further derives a group condition based on the determined group property (see col. 5, line 55 - col. 6, line 2; col. 6, line 9-20; Figs. 1, 6-7).

Regarding **Claim 23**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 22), in addition Crane further discloses the system according to claim 22, wherein the derived group condition comprises a traffic condition in a geographic region (see col. 5, line 55 - col. 6, line 2; col. 6, line 9-20; Figs. 1, 6-7).



Regarding **Claim 24**, Crane fails to disclose having the feature wherein the customized service is provided to the at least one mobile device of the group based on the derived traffic condition. However, the examiner maintains that the feature wherein the customized service is provided to the at least one mobile device of the group based on the derived traffic condition was well known in the art, as taught by Myr.

Myr further discloses the feature wherein the customized service is provided to the at least one mobile device (CMU) of the group based on the derived traffic condition (see col. 4, lines 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein the customized service is provided to the at least one mobile device of the group based on the derived traffic condition, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 25**, Crane fails to disclose having the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion. However, the examiner maintains that the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion was well known in the art, as taught by Myr.

Myr further discloses the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic jam which

reads on claimed "traffic congestion" (see col. 4, line 51-54; col. 7, lines 3-23; col. 8, line 66 - col. 9, line 9; col. 9, line 30-42; Figs. 1, 9, 12, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein the customized service includes providing alternate routes in the event the derived traffic condition corresponds to traffic congestion, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 26**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 22), in addition Crane further discloses the system according to claim 22, wherein information corresponding to the derived group condition is provided to an interested party (see col. 6, lines 1-4), where the information is provided to traffic monitoring organizations or users of the cellular phone location determining system (104) (see Figs. 1, 6-8).

Regarding **Claim 27**, Crane fails to disclose having the feature wherein a separate group of mobile users having a potential interest in obtaining the derived group condition is identified, and the derived group condition is provided to a respective one or more mobile devices of the one or more mobile users of the separate group. However, the examiner maintains that the feature wherein a separate group of mobile users having a potential interest in obtaining the derived group condition is identified, and the derived group condition is provided to a respective one or more mobile devices of the one or more mobile users of the separate group was well known in the art, as taught by Myr.

Myr further discloses the feature wherein a separate group of mobile users (CMU) having a potential interest in obtaining the derived group condition is identified (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the vehicle is informed of the condition of a zone that the vehicle is traveling towards; and

the derived group condition is provided to a respective one or more mobile devices of the one or more mobile users of the separate group (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the zone condition information is provided to the vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein a separate group of mobile users having a potential interest in obtaining the derived group condition is identified, and the derived group condition is provided to a respective one or more mobile devices of the one or more mobile users of the separate group, in order traffic information provided to the vehicle, as taught by Myr.

Regarding **Claim 28**, Crane fails to disclose having the feature wherein a separate group of mobile users having a potential interest in obtaining the determined group property is identified, and the determined group property is provided to a respective one or more mobile devices of the one or more mobile users of the separate group. However, the examiner maintains that the feature wherein a separate group of mobile users having a potential interest in obtaining the determined group property is identified, and the determined group property is provided to a respective one or more mobile devices of the one or more mobile users of the separate group was well known in the art, as taught by Myr.

Myr further discloses the feature wherein a separate group of mobile users (CMU) having a potential interest in obtaining the determined group property is identified (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the vehicle is informed of the condition of a zone that the vehicle is traveling towards, and the determined group property is provided to a respective one or more mobile devices of the one or more mobile users (CMU) of the separate group (see col. 8, line 66 - col. 9, line 10; col. 9, lines 14-38; col. 11, lines 20-25; Figs. 9, 12, 18), where the zone condition information is provided to the vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein a separate group of mobile users having a potential interest in obtaining the determined group property is identified, and the determined group property is provided to a respective one or more mobile devices of the one or more mobile users of the separate group, in order to provide traffic information to the vehicle, as taught by Myr.

Regarding **Claim 29**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 20), in addition Crane further discloses the system according to claim 20, wherein group information corresponding to the mobile devices (106) of the group is dynamically updated (see col. 3, lines 49-67; col. 6, lines 21-37, 46-52; Fig. 8), where the information or data collected for the data collection system (200) is updated as the cellular phones move between clusters of a geographic area.

Regarding **Claim 30**, Crane fails to disclose the feature wherein the group information is updated by modifying the group information to reflect one of an addition of a

new mobile device to the group and a deletion of a mobile device from the group. However, the examiner maintains that the feature wherein the group information is updated by modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile device from the group was well known in the art, as taught by Myr.

Myr further discloses the feature wherein the group information is updated by modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile device from the group (see col. 12, lines 11-38; col. 13, lines 2-15; Figs. 13, 18), where the system collects data related to the zones as vehicles enter and exit.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein the group information is updated by modifying the group information to reflect one of an addition of a new mobile device to the group and a deletion of a mobile device from the group, in order to provide traffic information to the vehicle, as taught by Myr.

Regarding **Claim 31**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 29), in addition Crane further discloses the system according to claim 29, wherein the group information is updated by modifying the group information to reflect new activity information of mobile devices (106) of the group (see col. 5, line 55 - col. 6, line 1; col. 5, lines 41-48), where data is collected to reflect the current conditions for traffic monitoring and reporting in which the new activity information would be inherent.

Regarding **Claim 32**, Crane discloses the feature wherein customized service is provided to the at least one mobile device of the group based on the one or more determined group properties. However, the examiner maintains that the feature wherein customized service is provided to the at least one mobile device of the group based on the one or more determined group properties was well known in the art, as taught by Myr.

Myr further discloses the feature wherein customized service is provided to the at least one mobile device (CMU) of the group based on the one or more determined group properties (see col. 4, lines 62-65; col. 7, line 3-23, col. 8, lines 30-36; col. 8, line 66 - col. 9, line 9; col. 9, line 48-63; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature wherein customized service is provided to the at least one mobile device of the group based on the one or more determined group properties, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 33**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 20), in addition Crane further discloses the system according to claim 20, wherein the memory medium further maintains a database of information including at least one of group information corresponding to the mobile devices (106) of the group, group conditions and group properties (see col. 3, lines 49-55; col. 5, lines 41-48; col. 5, line 55 - col. 6, line 19; Figs. 4, 6-7), where the location determining

system (104) and data collection system (200) collects data of the cellular phones in which the memory medium would be inherent.

Regarding **Claim 34**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 33), in addition Crane further discloses the system according to claim 33, wherein the database of information is dynamically updated based on the activities of the plurality of mobile devices (106) (see col. 3, lines 49-67; col. 6, lines 21-37,46-52; Fig. 8), where the information or data collected for the data collection system (200) is updated as the cellular phones move between clusters of a geographic area.

Regarding **Claim 35**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 34), in addition Crane further discloses the system according to claim 34, wherein the plurality of mobile devices (106) is tracked based on the database of information (see col. 3, lines 49-67; col. 5, lines 6-32; col. 5, line 55 - col. 6, line 2; Figs. 6-7).

Regarding **Claim 36**, Crane discloses a system for providing customized services to mobile devices (106) (see col. 5, line 55 - col. 6, line 5; Figs. 6-7), comprising:

memory medium for maintaining information corresponding to the mobile devices (106) in order to track the mobile devices (106) (see col. 3, lines 1-7; col. 5, lines 5-35; Figs. 1, 6), where the data of the cellular phones is collect in which the memory medium would be inherent; and

at least one processor (200) for identifying a group of mobile devices (106) sharing one or more common traits from the mobile devices (106) (see col. 5, lines 5-35,45-47; col. 5, lines 55 - col. 6, line 2; Figs. 1, 6), where the cellular phones are operating in the same cluster

of a geographic area. Crane fails to disclose the feature facilitating provision of customized service to at least one mobile device of the group derived from on the one or more common traits. However, the examiner maintains that the feature facilitating provision of customized service to at least one mobile device of the group derived from on the one or more common traits was well known in the art, as taught by Myr.

Myr further discloses the feature facilitating provision of customized service to at least one mobile device (CMU) of the group derived from the one or more common traits (see col. 4, lines 62-65; col. 7, line 3-23, col. 8, lines 30-36; col. 8, line 66 - col. 9, line 9; col. 9, line 48-63; Figs. 1, 9, 18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature facilitating provision of customized service to at least one mobile device of the group derived from on the one or more common traits, in order to provide a customized traffic information to the vehicle, as taught by Myr.

Regarding **Claim 37**, the combination of Crane and Myr discloses every limitation claimed, as applied above (see claim 36), in addition Crane further discloses wherein the memory medium maintains movement information of the mobile devices (106) to track the movement of the mobile devices (106), and the processor (200) identifies a group of mobile devices (106) utilized engaged in one or more common location-based activities (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7), where the cellular phones are traveling within the same geographic area in which the memory medium would be inherent.



Regarding **Claim 38**, Crane discloses a system for determining group characterization of mobile users (106) based on the activity of the mobile devices (106) (see Figs. 6-7), comprising:

memory medium for maintaining information on the mobile devices (106) to track the mobile devices (see col. 3, lines 1-7; col. 5, lines 5-35; Figs. 1, 6), where the cellular phones location is monitored by the system in which the memory medium would be inherent; and

at least one processor (200) for identifying a group of mobile devices (106) sharing one or more common traits from the mobile devices (106) (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7),

for determining one of a group condition and a group property of the identified group of mobile devices (106) (see col. 3, lines 49-67; col. 5, line 55 - col. 6, line 19; Figs. 1, 6-7).

Crane fails to disclose having the feature for providing a customized service derived from one or more common traits to at least one mobile device of the identified group. However, the examiner maintains that the feature for providing a customized service derived from one or more common traits to at least one mobile device of the identified group was well known in the art, as taught by Myr.

Myr further discloses the feature for providing a customized service derived from one or more common traits to at least one vehicle unit (SMU, CMU) which reads on the claimed "mobile device" of the identified group (see col. 4, lines 49-57, 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information according to the traffic situation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature for providing a customized service derived from one or more common traits to at least one mobile device of the identified group, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

Regarding **Claim 39**, Crane discloses a method of deriving information based on activities of a plurality of mobile devices (106), the method comprising:

tracking movement of a plurality of mobile devices (106) operating mobile communication devices (106), across a wireless network (see col. 5, lines 6-32; Figs. 1, 6-7), where system provides cellular communication in which the wireless network would be inherent;

identifying a group of mobile devices (106) traveling around a particular area (see col. 5, line 63 - col. 6, line 5; col. 6, lines 9-20; Figs. 1, 6-8), where the cellular phones are monitored in a cluster of a geographic area;

determining a group velocity associated with the group of mobile devices (see col. 5, line 63 - col. 6, line 5; col. 6, lines 9-20; Figs. 1, 6-8); and

deriving a traffic condition around the particular area based on the determined group velocity (see col. 5, line 63 - col. 6, line 5; col. 6, lines 9-20; Figs. 1, 6-8). Crane fails to disclose having the feature providing a customized service derived from said traffic condition to at least one mobile device of the group. However, the examiner maintains that the feature providing a customized service derived from said traffic condition to at least one mobile device of the group was well known in the art, as taught by Myr.

Myr further discloses the feature providing a customized service derived from said traffic condition to at least one vehicle unit (SMU, CMU) which reads on the claimed "mobile device" of the group (see col. 4, lines 49-57, 62-65; col. 7, line 3-23; col. 15, lines 45-51; col. 17, lines 21-41; col. 5, lines 19-24; Figs. 1, 9, 18), where the position of the vehicle unit is monitored to provide travel information according to the traffic situation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Crane and Myr to have the feature providing a customized service derived from said traffic condition to at least one mobile device of the group, in order to provide optimal route from the present position of a vehicle to a desired target location, as taught by Myr (see col. 2, lines 14-16).

*Response to Arguments*

5. Applicant's arguments with respect to claims 1-39 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR  
14 June 2005

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